

IN THE CLAIMS:

Please amend Claims 1, 2-4, 7, 9-12, 20-21, and 26-27 as follows:

a1 1. (Amended) A microelectronic spring structure, comprising:
a base formed of a resilient material;
a beam formed integrally with said base of said resilient material, and connected to said base at a first end of said beam; and
a tip positioned at a second end of said beam opposite to said base;
wherein said beam has an unsupported span between said tip and said base and wherein said beam has a length running between said base and said tip, a substantially uniform thickness, and a width between a first edge and a second edge of said beam, and wherein every cross-section of said beam taken across said width for at least a portion of said unsupported span extends from a neutral axis of said every cross-section for a distance substantially greater than one-half of the substantially uniform thickness of said beam, said neutral axis running through said first edge, said second edge, and a centroid of said every cross-section.

2. (Amended) The microelectronic spring structure of Claim 1, further comprising a substrate attached at a substrate surface thereof to said base.

3. (Amended) The microelectronic spring structure of Claim 2, wherein said tip has an unloaded height over said substrate surface in the range of 1 to 5 mils.

4. (Amended) The microelectronic spring structure of Claim 3, wherein said tip has an unloaded height over said substrate surface ~~less than about 2 mils.~~

a2 7. (Amended) The microelectronic spring structure of Claim 6, wherein said beam has a width less than about 1 mil.

9. (Amended) The microelectronic spring structure of Claim 1, wherein said beam has a substantially uniform thickness in a direction perpendicular to the substrate.

A3 10. (Amended) The microelectronic spring structure of Claim 1, wherein said beam has a substantially uniform thickness in the range of about 0.4 to 20 mils.

11. (Amended) The microelectronic spring structure of Claim 1, wherein said beam has a substantially uniform thickness less than 0.4 mils.

12. (Amended) The microelectronic spring structure of Claim 1, wherein said beam, as measured at said every cross-section has an area moment of inertia substantially greater than said width at said every cross-section multiplied by the cube of said substantially uniform thickness, divided by twelve.

94 13. (Amended) The microelectronic spring structure of Claim 1, wherein every cross-section of said unsupported span taken across said width of said beam at every location along said length of said beam extends from a neutral bending axis of said every cross-section for a distance substantially greater than one-half of said substantially uniform thickness of said beam.

21. (Amended) The microelectronic spring structure of Claim 1, wherein said every cross-section is generally V-shaped.

26. (Amended) The microelectronic spring structure of Claim 25, wherein said stepped portion of said beam has a step height in the range about 5% to 20% of an unloaded height of said tip over said substrate surface.

27. (Amended) The microelectronic spring structure of Claim 25, wherein said stepped portion of said body portion has a step height about 10% of an unloaded height of said tip over said substrate surface.
